

This listing of claims will replace all prior versions and listings of claims in the application.

- 5 1. (Currently amended) A process for the preparation of an, optionally hydrogenated, nitrile rubber comprising the steps of
- a) reacting a nitrile rubber in the presence at least one compound selected from the group consisting of compounds of the general formula I,



M^1 is Os or Ru:

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X is selected from any anionic ligand; and

L¹ is a neutral π -bonded ligand, preferably but not limited to arene, substituted arene, heteroarene, independent of whether they are mono- or polycyclic;

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alkoxycarbonylalkyl-, hydroxycarbonylalkyl-, hydroxyalkyl-
or ketoalkyl- groups, phosphites, phosphinites,
phosphonites, phosphinamines, arsines, stibenes, ethers,
amines, amides, imines, sulfoxides, thioethers and
pyridines;

Y⁻ is a non-coordinating anion; and optionally further in the
presence of at least one co-olefin and

~~and~~ for the hydrogenated nitrile polymer

b) hydrogenating the product of step a).

2. (Original) A process according to claim 1 wherein the nitrile rubber is
hydrogenated and the hydrogenation is performed under homogeneous
catalytic conditions.

3. (Original) A process according to claim 2 wherein the hydrogenation is
carried out *in situ*; that is, without first isolating the product of step a).

4. (Original) A process according to any of claims 1-3 wherein L is a
trialkylphosphine, L¹ is 1-methyl-4-iso-propylphenyl, X is a chloride ion, R
is phenyl and M is ruthenium.

5. (Currently Amended) A process according to ~~any of claims 1-4~~ claim 1
wherein the ratio of compound to nitrile rubber is in the range of from
0.005 to 5.

6. (Currently Amended) A process according to ~~any of claims 1-5~~ claim 1
when conducted in the presence of at least one co-olefin.

7. (Currently Amended) A process according to ~~any of claims 1-6~~ claim 1
wherein the process is carried out in an inert solvent selected from the
group consisting of monochlorobenzene, dichloromethane, benzene,
toluene, tetrahydrofuran and cyclohexane.

8. (Currently Amended) A process according to ~~any of claims 1-7~~ claim 1 wherein the nitrile rubber is hydrogenated and the hydrogenation is carried out using a catalyst of formula :



wherein each R^8 is independently selected from the group consisting of a C_1 - C_8 -alkyl group, a C_4 - C_8 -cycloalkyl group, a C_6 - C_{15} -aryl group and a C_7 - C_{15} -aralkyl group;

10 B is selected from the group consisting of phosphorus, arsenic, sulfur, and a sulphoxide group ($S=O$) ;

X^3 is selected from the group consisting of hydrogen and an anion; and

l is 2, 3 or 4, m is 2 or 3 and n is 1, 2 or 3.

- 15 9. (Original) A process according to claim 8 wherein the hydrogenation catalyst is $(PPh_3)_3RhCl$.